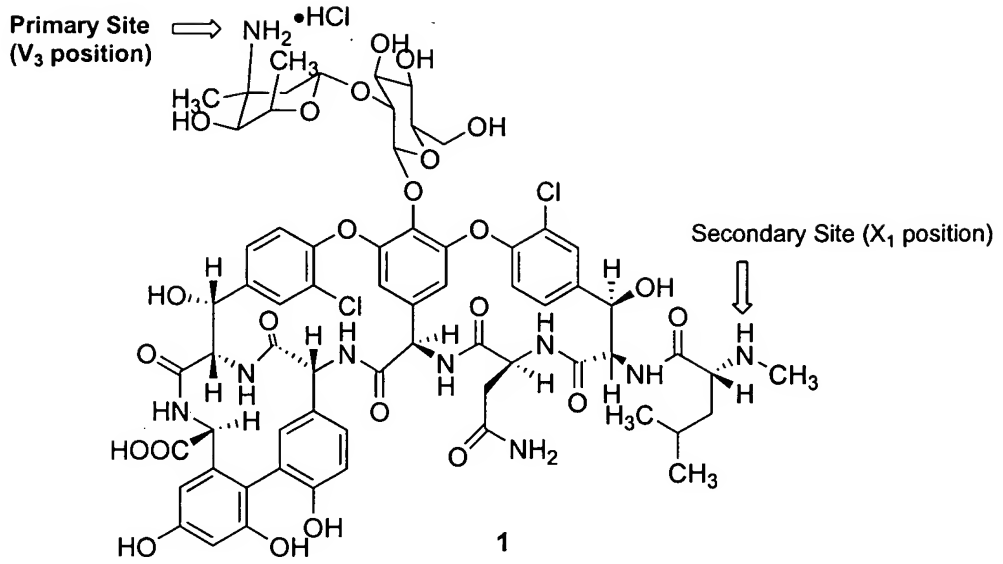
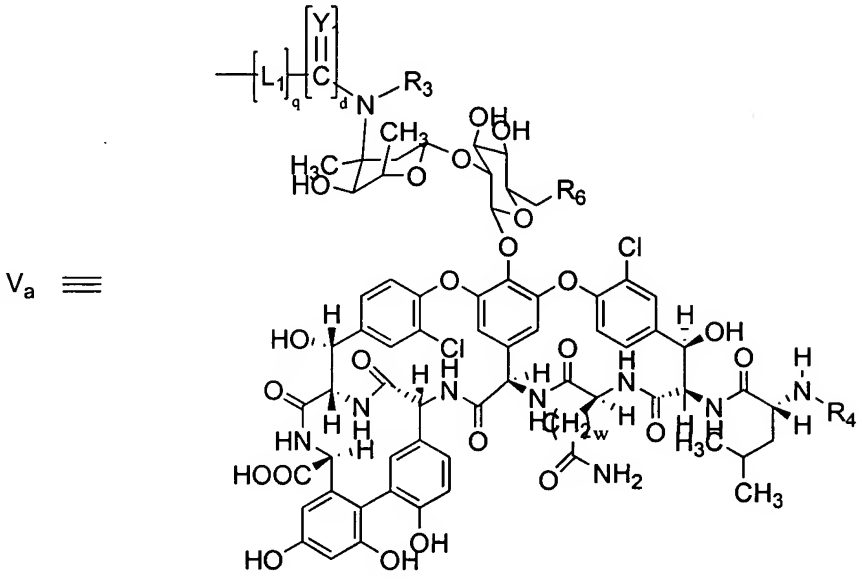
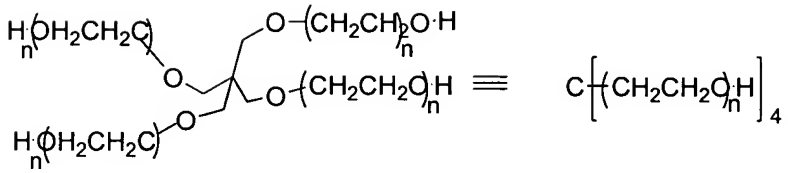
Figure 1.

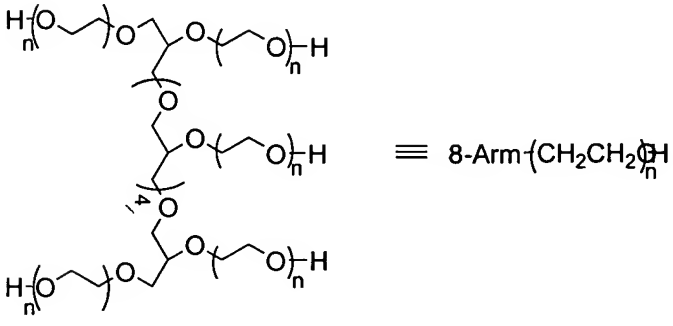

Primary Site
(V_3 position)
Secondary Site (X_1 position)

1


V_a ≡


≡ $C\left[\left(CH_2CH_2O\right)_nH\right]_4$

2


≡ 8-Arm-$\left(CH_2CH_2O\right)_nH$

3

Figure 2.

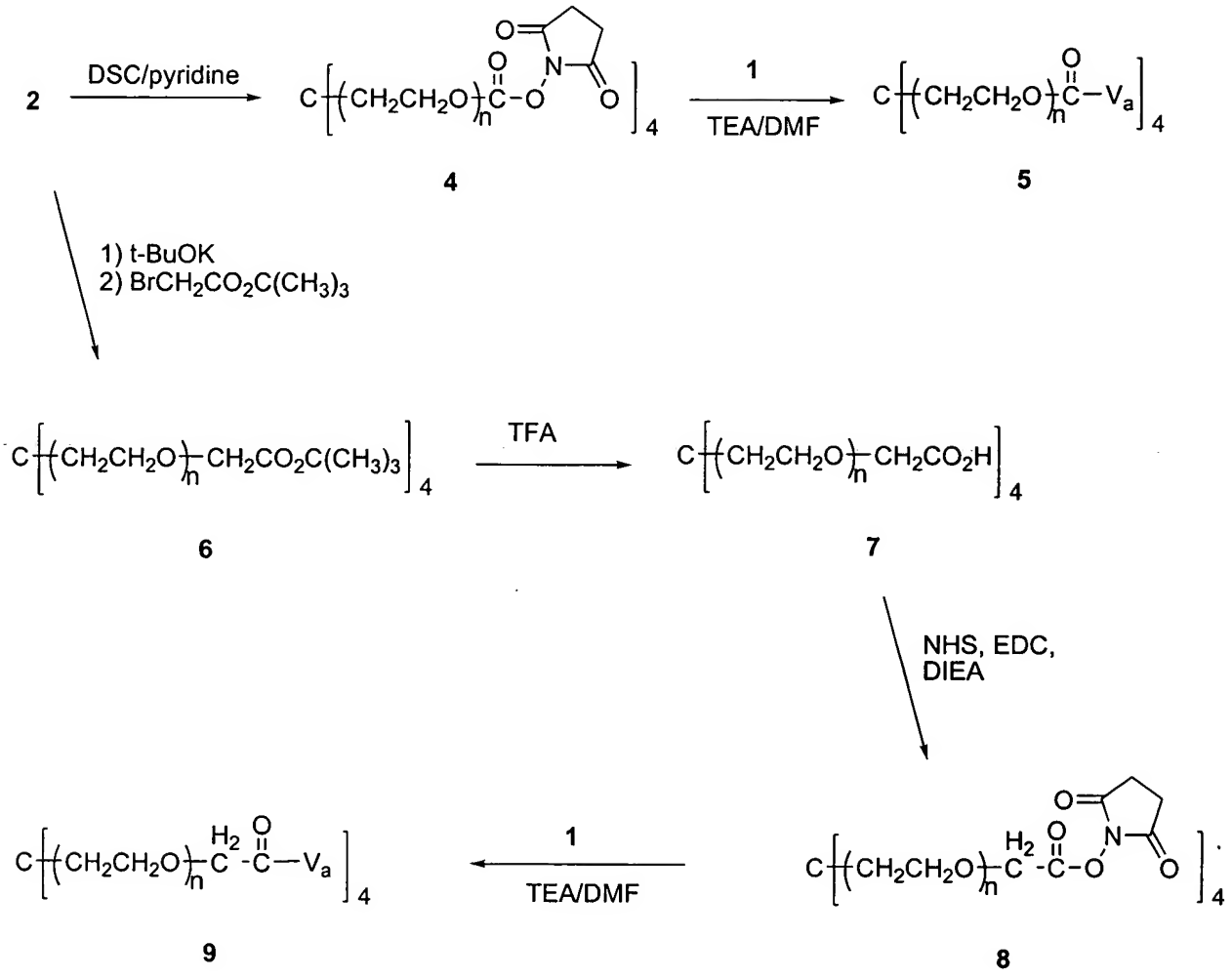

2
DSC/pyridine
4
1
TEA/DMF
5
1) t-BuOK
2) BrCH2CO2C(CH3)3
6
TFA
7
NHS, EDC,
DIEA
8
1
TEA/DMF
9

Figure 3.

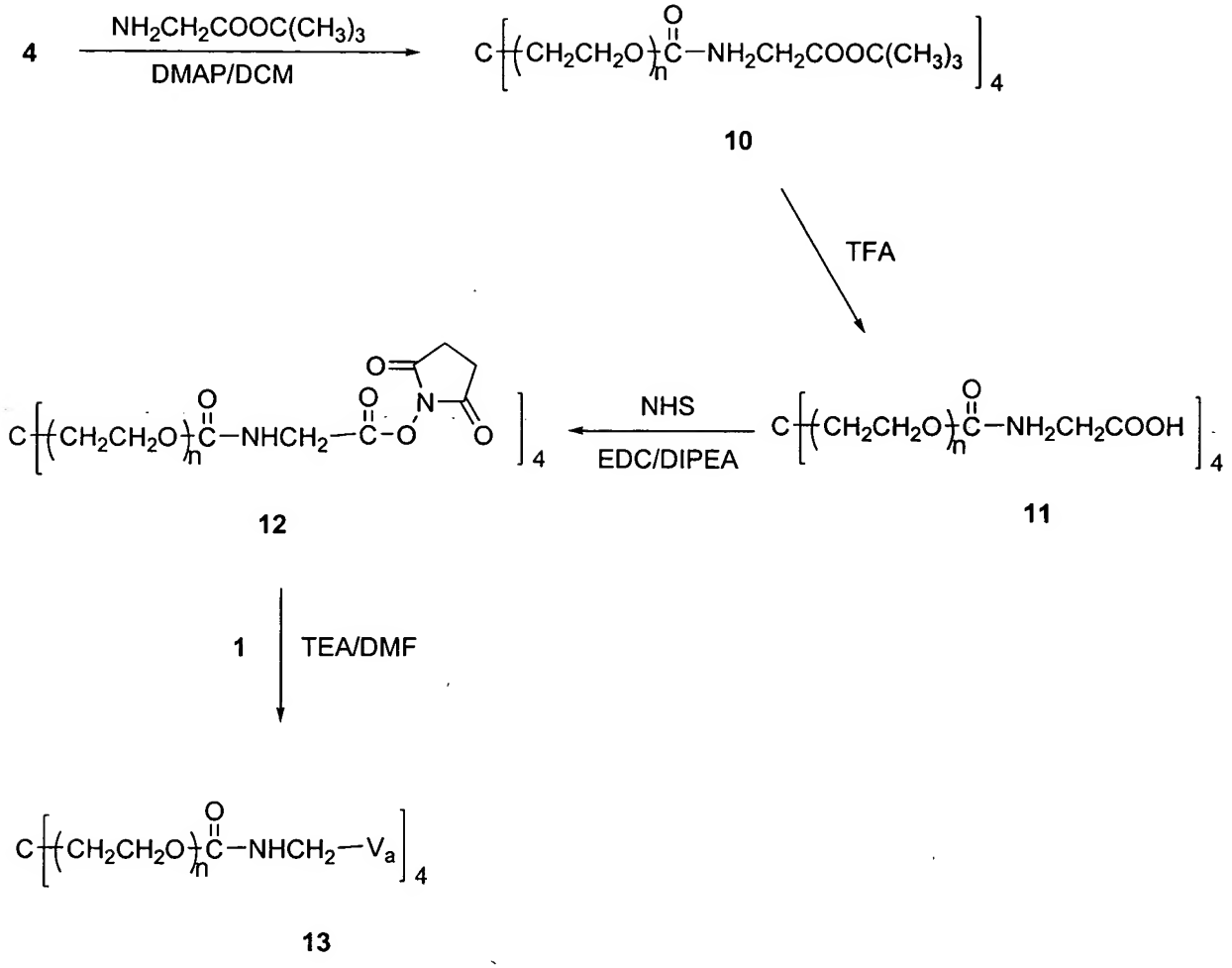
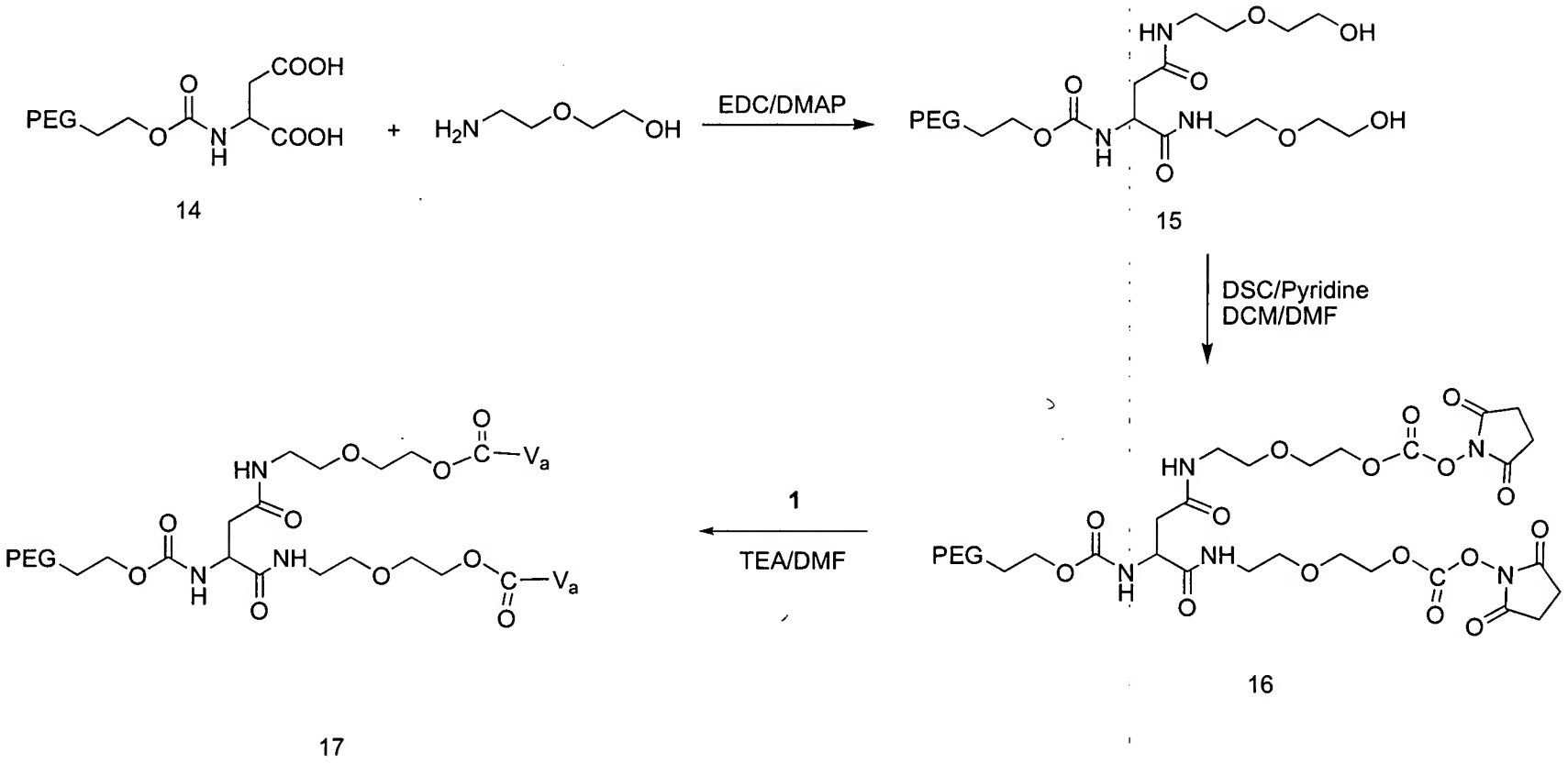
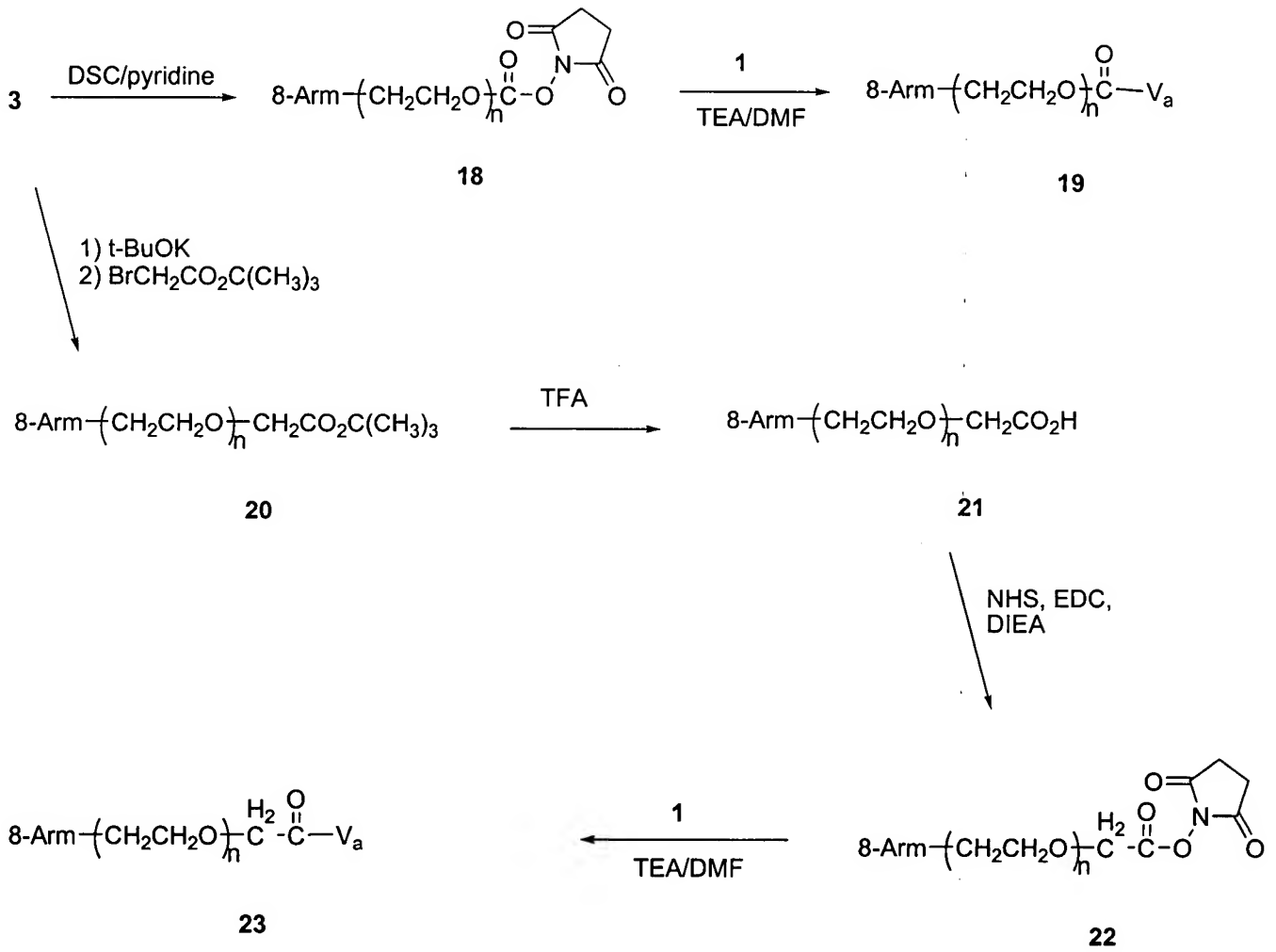

4
NH2CH2COOC(CH3)3
DMAP/DCM
10
TFA
NHS
EDC/DIPEA
11
12
1
TEA/DMF
13

Figure 4.



PEG = $-O-\left(CH_2-CH_2-O\right)_n-$

Figure 5.


3
DSC/pyridine
8-Arm-(CH2CH2O)n-C(=O)-O-N(C=O)2
18
1
TEA/DMF
8-Arm-(CH2CH2O)n-C(=O)-Va
19
1) t-BuOK
2) BrCH2CO2C(CH3)3
8-Arm-(CH2CH2O)n-CH2CO2C(CH3)3
20
TFA
8-Arm-(CH2CH2O)n-CH2CO2H
21
NHS, EDC,
DIEA
8-Arm-(CH2CH2O)n-CH2-C(=O)-O-N(C=O)2
22
1
TEA/DMF
8-Arm-(CH2CH2O)n-CH2-C(=O)-Va
23